

# Definitions of disasters

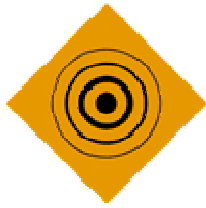
In July 2008, CRED (Centre for Research on the Epidemiology of Disasters) and MunichRe released a common “Disaster Category Classification for Operational Databases”. This new common classification represents a first step in the development of a standardized international classification of disasters.

It distinguishes two generic categories for disasters (natural and technological), the natural disaster category being divided into six sub-groups: Biological, Geophysical, Climatological, Hydrological, Meteorological and Extra-Terrestrial disasters. Each sub-group in turn covers 12 disaster types and more than 32 sub-types. Because some disasters the International Federation is responding to are not in this classification, a “Human related” category has been added. The hierarchy of the new classification was constructed based on a “triggering hazard” logic. Indeed the triggering hazard is used as the reference root to classify the disaster. For example, a mass movement can be triggered by either a geophysical or a hydrological phenomenon. The triggering hazard will then determine if the disaster is assigned to in mass movement dry or wet category.

This document presents and defines this classification. It is in the interest of the Federation to adopt it.

For any question, please contact [frederic.zanetta@ifrc.org](mailto:frederic.zanetta@ifrc.org)

**Geophysical sub-group : Events originating from solid earth**



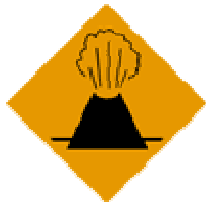
**Earthquake**  
**Tremblement de terre**  
**Terremoto**

Shaking and displacement of ground due to seismic waves. This is the earthquake itself not the secondary effects!



**Tsunami**

Waves advancing inland



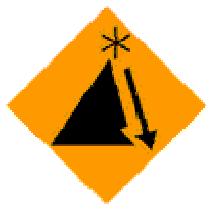
**Volcano**  
**Volcan**  
**Volcán**

All volcanic activity like rock fall, ash fall, lava streams, gases etc



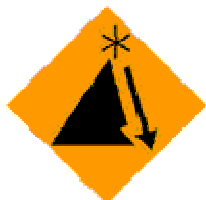
**Rockfall**  
**Chute de pierres**  
**Desprendimiento de rocas**

Quantities of rock or stone falling freely from a cliff face



**Land slide**  
**Glissement de terrain**  
**Deslizamiento de tierra**

Any kind of moderate to rapid soil movement incl. lahar, mudslide, debris flow



**Avalanche**  
**Avalanche**  
**Avalanchas**

Any kind of rapid snow/ice movement



**Subsidence**  
**Affaissement**  
**Subsidencia**

Downward motion of the Earth's surface relative to a datum (e.g. the sea level)

**Hydrometeorologic - Meteorological sub-group : Events caused by shortlived/ small to mesoscale atmospheric processes (in the spectrum from minutes to days)**



**Tropical cyclone**

**Cyclone tropical**

**Ciclón tropical**

A tropical cyclone (also known as a hurricane or typhoon) is a storm system with a closed circulation around a centre of very low pressure and fuelled by the heat released when moist air rises and condenses. Tropical Cyclones originate over tropical or subtropical waters, with organized deep convection and a closed surface wind circulation about a well-defined centre (the eye). Once formed, a tropical cyclone is maintained by the extraction of heat energy from the ocean at high temperature and heat export at the low temperatures of the upper troposphere.

Tropical cyclones are characterised by very high winds (>119km/h), tornadoes, torrential rain (leading to mudslides and flash floods) and storm surges.

Classification: Tropical depression (<34 knots/63 km/h), Tropical storm (34-63 knots/63-119 km/h) hurricane/typhoon (64 knots/119 km/h -...) Super-typhoon (>130 knots/245 km/h)



**Extra tropical cyclone**

**Cyclone extra-tropical**

**Ciclón extratropical**

Extratropical cyclones (also known as depressions or lows) are defined as large scale low pressure weather systems that occur in the middle latitudes (normally between 30°- 60° N and S) of the earth, having neither tropical nor polar characteristics. They are connected with fronts and horizontal gradients in temperature and dew point otherwise known as "baroclinic zones".

Extratropical cyclones can bring mild weather with a little rain and surface winds of 15-30 km/h (10- 20 mph), or they can be cold and dangerous with torrential rain and winds exceeding 119 km/h (74 mph). Tropical Cyclones sometimes become extra-tropical, and while most quickly dissipate or are absorbed by another weather system, some can still retain winds of hurricane or gale force



**Local storm**

**Tempête**

**Tormenta local**

Any disturbed state of a planet's atmosphere, especially affecting its surface, and resulting in severe weather. It may be marked by strong winds (a wind storm), thunder and lightning (a thunderstorm), heavy precipitation, ice (ice storm), or wind transporting some material through the atmosphere (e.g. dust storm, snowstorm or hailstorm)

**Hydrometeorologic - Hydrological sub-group : Events caused by deviations in the normal water cycle and/or overflow of bodies of water caused by wind set-up**



**Floods**

**Inondations**

**Inundaciones**

Gradually rising inland floods (rivers, lakes, groundwater) due to high total depth of rainfall or snowmelt (EM-DAT definition).

The inundation of a normally dry area caused by high flow, or overflow of water in an established watercourse, such as a river, stream, or drainage ditch; or ponding of water at or near the point where the rain fell. This is a duration type event with a slower onset than flash flooding, normally greater than 6 hours



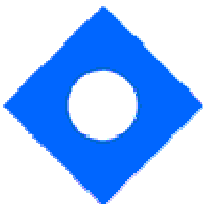
**Flash floods**

**Crue subite**

**Inundación repentina**

Rapid inland floods due to intense rainfall (EM-DAT definition).

A rapid and extreme flow of high water into a normally dry area, or a rapid water level rise in a stream or creek above a predetermined flood level, beginning within six hours of the causative event (e.g., intense rainfall, dam failure, ice jam). However, the actual time threshold may vary in different parts of the country. Ongoing flooding can intensify to flash flooding in cases where intense rainfall results in a rapid surge of rising flood waters



**Storm surge**

**Onde de tempête**

**Marea de tempestad**

Coastal flood on coasts and lake shores induced by wind (EM-DAT definition).

Water that is pushed toward the shore by the force of the winds swirling around the storm. This advancing surge combines with the normal tides to create the hurricane storm tide, which can increase the mean water level 15 feet (4,5 m) or more. In addition, wind driven waves are superimposed on the storm tide. This rise in water level can cause severe flooding in coastal areas, particularly when the storm tide coincides with the normal high tides



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**Hydrometeorologic - Climatological sub-group** : Events caused by longlived/ meso to macroscale processes (in the spectrum from intraseasonal to multidecadal climate variability)



**Heat wave**

**Vague de chaleur**

**Ola de calor**

A long lasting period with extremely high surface temperature



**Cold wave**

**Vague de froid**

**Ola de frio**

Marked cooling of the air, or the invasion of very cold air, over a large area

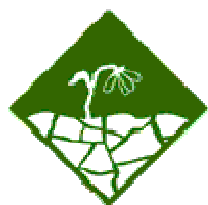


**Extreme winter condition**

**Conditions hivernales extrêmes**

**Condiciones invernales extremas**

Damage caused by snow and ice



**Drought**

**Sécheresse**

**Sequia**

Long lasting event; triggered by lack of precipitation. Period of deficiency of moisture in the soil such that there is inadequate water required for plants, animals and human beings



**Forest fire**  
**Feux de forêts**  
**Incendio forestal**

Fires in forest that cause extensive damage



**Bush fire**  
**Feux de brousses**  
**Incendio forestal**

Fires in bush that cause extensive damage



**Grassland fire**  
**Feux de prairies**  
**Incendio de pradera**

Fires in grassland that cause extensive damage



**Urban fire**  
**Incendies en milieu urbain**  
**Incendio urbano**

Fires in urban area that cause extensive damage

**Biological sub-group : Disaster caused by the exposure of living organisms, to germs and toxic substances**



**Epidemic**

**Epidémie**

**Epidemia**

Sub-types: Viral Infectious Diseases, Bacterial Infectious Diseases, Parasitic Infectious Diseases, Fungal Infectious Diseases, Prion Infectious Diseases

1.- An unusual increase in the number of cases of an infectious disease which already exists in the region or population concerned.

2.- The appearance of a significant number of cases of an infectious disease introduced in a region or population that is usually free from that disease



**Grasshoppers**

**Sauterelles**

**Saltamontes**

Pervasive influx and development of grasshoppers affecting humans, animals, crops and materials



**Locust**

**Criquets**

**Langostos**

Pervasive influx and development of locust affecting humans, animals, crops and materials

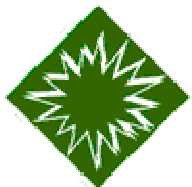


**Animal attack**

**Attaque d'animal**

**Ataque de animales**

Attack from an animal



**Meteorite**

**Météorite**

**Meteoritos**

Events arising from the impact of solid bodies or the influence of radiation from space (EM-DAT).



## ***Technological – Industrial accident sub-group***

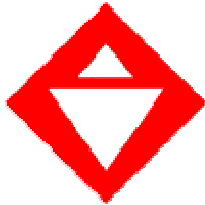


**Chemical spill**

**Pollution chimique**

**Contaminacion quimica**

Accidental release occurring during the production, transportation or handling of a hazardous chemical substances.



**Collapse**

**Effondrement**

**Derrumbamientos**

Break down of industrial building or construction



**Explosion**

A violent release of energy caused by a chemical or nuclear reaction



**Gas leak**

**Fuite de gaz**

**Fuga de gas**

A leak of gas from a pipe or other containment



**Poisoning**

**Empoisonnement**

**Envenenamiento**

A condition or physical state produced by the ingestion, injection or inhalation of, or exposure to a deleterious agent.



**Radiation**

**Radiation**

**Radiacion**

Nuclear radiation



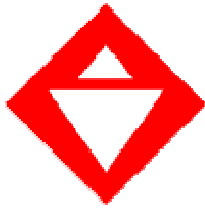
**Other**

**Autre**

**Otro**

All other disasters

***Technological – Miscellaneous accident sub-group***

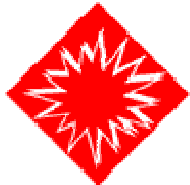


**Collapse**

**Effondrement**

**Derrumbamientos**

Break down of building or infrastructure (dam, ...)



**Explosion**

A violent release of energy caused by a chemical or nuclear reaction, a bomb



**Fire**

**Incendie**

**Incendio**

The process of combustion of inflammable materials producing heat and light and (often) smoke



**Other**

**Autre**

**Otro**

All other disasters

## ***Technological – Transport accident sub-group***



**Air**

**Accident aérien**

**Catástrofe aérea**

Accident involving flying vehicles



**Rail**

**Accident ferroviaire**

**Catástrofe ferroviaria**

Accident involving trains

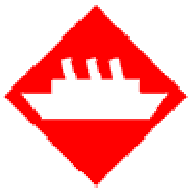


**Road**

**Accident outier**

**Accidente vial**

Accident involving cars, trucks, buses, ... on a road



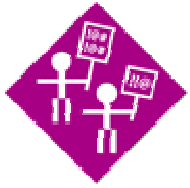
**Water**

**Accident maritime**

**Catástrofe marítima**

Accident involving boats

## **Human related**

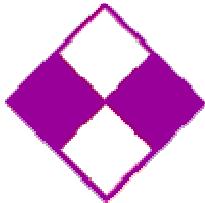


**Civil unrest**

**Troubles**

**Disturbios**

Typically a symptom of, and a form of protest against, major socio-political problems. Typically, the severity of the action coincides with public outrage. Examples of civil disorder include, but are not necessarily limited to: illegal parades; sit-ins and other forms of obstructions; riots; sabotage; and other forms of protest. It is intended to be a demonstration to the public and the government, but can escalate into general chaos.



**Complex emergency**

**Urgences complexes**

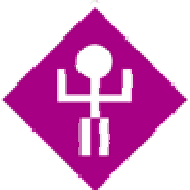
**Emergencia compleja**

A humanitarian crisis in a country, region or society where there is total or considerable breakdown of authority resulting from internal or external conflict and which requires an international response that goes beyond the mandate or capacity of any single agency and/ or the ongoing United Nations country program (IASC) Such “complex emergencies” are typically characterized by:

- extensive violence and loss of life; massive displacements of people often cross border (refugees); widespread damage to societies and economies;
- the need for large-scale, multi-faceted humanitarian assistance;
- the hindrance or prevention of humanitarian assistance by political and military constraints;
- significant security risks for humanitarian relief workers in some areas.

1.- An unusual increase in the number of cases of an infectious disease which already exists in the region or population concerned.

2.- The appearance of a significant number of cases of an infectious disease introduced in a region or population that is usually free from that disease.

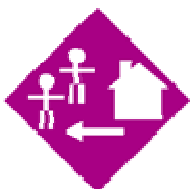


**Famine**

**Famine**

**Hambruna**

A catastrophic food shortage affecting large numbers of people due to climatic, environmental and socio-economic reasons.



**Population movement**

**Mouvements de population**

**Movimientos de poblacion**

Refugees, internally displaced peoples (IDPs) and migrants.